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EXAMINER

ALEMU, E

ART UNIT

PAPER NUMBER

2821

DATE MAILED: 10/25/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/402,581

Applicant(s)

BECKER, NORBERT

Examiner

Ephrem Alemu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2000.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 July 2000 is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some * c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☐ received.
2. ☐ received in Application No. (Series Code / Serial Number) _____.
3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5 1/2.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “adjusting means being arranged adjacent to the gas discharge lamp” as claimed in claim 16; “an optic and/or acoustic signal device” in claim 17; must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Claim Objections

2. Claim 4 is objected to because it includes reference characters (5a to 5c) which are not enclosed within parentheses.

Reference characters corresponding to elements recited in the detailed description of the drawings and used in conjunction with the recitation of the same element or group of elements in the claims should be enclosed within parentheses so as to avoid confusion with other numbers or characters which may appear in the claims. See MPEP § 608.01(m).

3. Claim 9 is objected to because of the following informalities: Claim 9, lines 5-6, recites controlling means containing a storage. The use of “containing” is improper. The Examiner suggests replacing “containing” with –including or comprising--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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5. Claims 9-20 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

In claim 1, the feature “measuring and adding the respective individual operating duration of the gas discharge lamp (3) to the preceding individual operating duration of the individual gas discharge lamp” is not illustrated or taught in the specification.

In claim 9: A) “a storage for characteristic data of the gas discharge lamp” in line 6; and B) “a control means for adjusting an electric output to be supplied to the gas discharge lamp based on the measured total operating duration and the characteristic data of the gas discharge lamp” in lines 5-19 are not illustrated in the figure as claimed. Further, the “time measuring means are associated with the gas discharge lamp and are electrically connected with the gas discharge lamp” as claimed are not illustrated in the figure. The Applicant has canceled sensor (7) and storage unit (8) from the drawing and the respective text portion from the specification (page 6, second paragraph) in the amendment filed on 7-25-00 of Paper No. 7 and 8. In the instant Application one can not determine from the invention, without the actual constitution or connection of the time measuring means in the circuit, how the time measuring means measures the operating duration of the gas discharge lamp based on the proposed figure filed on 7-25-00 of Paper No. 7 with the respective text portion of the specification.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 9, the feature "time measuring means configuredare associated with a gas discharge lamp" is not clear. Are there more than one time measuring means to measure the total operating duration of a **single discharge lamp** as claimed? Further, it is not clear to one ordinary skill in the art how the time measuring means will be able to determine the operating duration of the discharge lamp based on the description of the amended specification and the amended figure.

In claim 10, are the features claimed in claim 10, "a storage receiving characteristic data of the gas discharge lamp" and "time measuring means," are different than "the storage for characteristic data of the gas discharge lamp and the time measuring means" claimed, in claim 9? Further, the electric or electronic controlling means illustrated in the drawing as numeral number **one** does not include electronic ballast device (5a, 5b or 5c).

In claim 19, the claimed feature wherein the electric output to be supplied to the gas discharge lamp is adjusted to be output remaining at least approximately 10 % smaller than the electric nominal output of the lighting means is not clear?

7. Claims 2, 4 and 5, recites the limitation "the ballast device" in lines 2, 4 and 4 respectively. There is insufficient antecedent basis for this limitation in the claims.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. With regard to claims 9 and 18-20, Suga discloses a device for operating an electric gas discharge lamp comprising an electric or electronic controlling means (24) including a memory (not shown) for adjusting an electric output to be supplied to the gas discharge lamp (20) for the purpose of obtaining a predetermined light output or radiation output of the gas discharge lamp (23) (see **abstract**, lines 1-13; Col. 3, line 22 – Col. 4, line 25; Col. 5, lines 12-19; wherein the energy regulator (24) is a control means for automatically controlling or adjusting the electric output supplied to the gas discharge lamp based on the power at relation between the time of use of the discharge lamp and the respective levels of the discharge power stored in the memory apparatus within the energy regulator). Suga does not explicitly teach of adding the measured output duration of the discharge lamp to the preceding operating duration of the discharge lamp in order to obtain the total operating duration of the gas discharge lamp. However, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to add the measured output duration of the discharge lamp to the preceding operating duration of the discharge lamp in order to obtain the total operating duration of the gas discharge lamp and further to control the level of the light or irradiance output at a predetermined level.

10. Claims 4-8, 10-13 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suga (US 4,831,564) in view of Bernitz et al. (US 5,680,015)

With regard to claim 10, Suga discloses a control means as described above in claim 9, a ballast device (lighting unit) with adjustable output power (26); and a storage (memory, 1) receiving characteristic data of the gas discharge lamp apart from an electronic processor (24)

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Fig. 1, Col. 4, lines 10-47) and a time measuring means (timer, 3) for providing at each of a plurality of predetermined times instructions for starting a comparison of the value of the discharge power of the xenon lamp being used with the stored values. Suga, however, does not disclose if the ballast device (lighting unit) is an electronic ballast.

Bernitz discloses an electronic ballast (WR, LC), apart the electronic processor (microprocessor, MC), a storage for receiving characteristic data (i.e. lamp current) of the gas discharge lamp (C6) and providing the electronic processor (microprocessor) the characteristic data of the gas discharge lamp for a stable or constant light output operation (see **abstract**; Fig. 2, Col. 2, line 62- Col. 3, line 49; Col. 11, lines 10-40). It would have been obvious to one having an ordinary skill in the art at the time the invention was made to modify Suga's apparatus with Bernitz's to simply provide Suga's apparatus with an electronic ballast for operating a gas discharge lamp.

With regard to claims 11, 12 and 13, Bernitz teaches that the electronic ballast device (WR, LC) is designed for processing control signals which contain, in the form of a frequency or voltage or current, the information pertaining to the electric output to be supplied to the gas discharge lamp (Col. 3, lines 40-59; Col. 4, lines 56-67).

With regard to claim 17, Suga's modified by Bernitz's system discloses all the claimed limitation except the controlling means/ time measuring means the time-measuring means associated with the lighting means are connected with an optic and/or acoustic signal device for signaling the given total operating duration achieved by the lighting means. It is well known in the field of lighting to monitor or measure the lamp output (i.e. voltage, current or temperature)

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of the discharge lamp using an optic device and use these parameters for controlling the operation of the light output.

With regard to claims 4-8, given Suga's modified by Bernitz's apparatus as described above in claims 9 and 10, the method for the operation of electric gas discharge lamp as claimed in claims 4-8, is inherent.

11. Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suga (US 4,831,564) in view of Bernitz et al. (US 5,680,015) as applied above in claims 10, 11 and 13, and further in view of Donohoe (US 5,274,611).

With regard to claims 14, 15 and 16, Suga's modified by Bernitz's device discloses all the claimed subject matter as described above in claims 10, 11 and 13 except a manually adjusting means for the initialization of the time measurement. Donohoe discloses an adjusting means (reset, 19) for resetting (initializing) of the time measurement (timer) when a the gas discharge lamp is replaced (Fig. 1, Col. 3, lines 40-49). It would have been obvious to one having an ordinary skill in the art at the time the invention was made to modify Suga's modified by Bernitz's device with Donohoe's adjusting means simply for resetting (initializing) the timer each time a new lamp is replaced in the device.

Response to Arguments

12. Applicant's arguments filed on 7-25-00 have been fully considered but they are not persuasive because Suga's reference teaches the claimed invention.

The system of Suga's gets the information of the characteristic data of the discharge lamp by testing over plurality of new, unused lamps and the average values of the discharge power obtained from the plurality of embodiments (that is the characteristic data of the gas discharge

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lamp) on the time of use are determined and stored in the memory in advance to automatically regulate the light or radiation output to remain at a constant predetermined level (Col. 3, line 26-66). In addition, the system of Suga's teaches on how to estimate and display the remainder of the lifetime of a gas discharge lamp (Xenon lamp) (Fig. 1; see entire patent). Thus, the circuit arrangement and method for the operation of an electric gas discharge lamp as claimed would have been obvious.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hanazaki et al. (US 5,465,029) also teaches similar inventive subject matter.

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ephrem Alemu whose telephone number is (703) 306-5983. The examiner can normally be reached on M-F Flex hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don K Wong can be reached on (703) 308-4856. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

EA
10-11-00

Haissa Philogene
Primary Examiner
[Signature]
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